

**GAS COMPRESSOR  
DATASHEET**



DATE

5/4/2011

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1	CUSTOMER	IFIC						<b>MODEL NUMBER</b>	
2	USER & SITE	IFIC		PJT. NO.	not specified		<b>2083</b>		
3	INQUIRY NO.	not specified		ITEM NO.	COMPRESSOR				
4	PPI QUOTE NO.	10-065-CP	REV.	3					
5	NO. REQ'D	WORKING	one (1)	STAND-BY	0	TOTAL	one (1)	PREPARED BY :	JDP

**CUSTOMER SUPPLIED OPERATION CONDITIONS**

		NORMAL	MINIMUM	MAXIMUM	ALTERNATE
8	GAS HANDLED	XENON			
9	MOLECULAR WEIGHT	131.00	(estimated)		
10	SPECIFIED CAPACITY	SLPM	200.0	50.0	100.0
11		KG/HR	66.3	16.6	33.2
12					

**CUSTOMER SPECIFIED SUCTION CONDITIONS**

14	PRESSURE	BARG	10.0	10.0	10.0
15	TEMPERATURE	C	40	(given)	
16	Cp/Cv	(K1)	1.66	(given)	
17	COMPRESSIBILITY	(Zs)	0.95	(estimated)	

**CUSTOMER SPECIFIED DISCHARGE CONDITIONS**

19	PRESSURE	BARG	11.0	(given)	
20	TEMPERATURE	C	NOT SPECIFIED	(given)	
21	Cp/Cv	(K2)	1.66	(given)	
22	COMPRESSIBILITY	(Zd)	0.93	(estimated)	

**COMPRESSOR PERFORMANCE DATA**

MODEL NUMBER		2083			
		NORMAL	MINIMUM	MAXIMUM	ALTERNATE
<b>1ST STAGE</b>					
27	SUCTION PRESSURE	BARG	10.00	9.66	10.34
28	CAPACITY @ DISCH PRESS	SLPM	200.0	193.0	207.0
29	ESTIMATED DISCH TEMP (note a)	C	50	54	46
30	VOLUMETRIC EFFICIENCY	%	79.53%	79.38%	79.67%
31	OPERATING ROD LOAD	KGf	140	140	140
32	COMPRESSION RATIO		1.1	1.1	1.1
<b>2ND STAGE</b>					
35	SUCTION PRESSURE	BARG	N/A	N/A	N/A
36	CAPACITY @ DISCH PRESS	SLPM	N/A	N/A	N/A
37	ESTIMATED DISCH TEMP (note a)	C	N/A	N/A	N/A
38	VOLUMETRIC EFFICIENCY	%	N/A	N/A	N/A
39	OPERATING ROD LOAD	KGf	N/A	N/A	N/A
40	COMPRESSION RATIO		N/A	N/A	N/A
42	ADIABATIC BHP	KW	0.0	0.1	0.0
43	REQUIRED MOTOR POWER	KW	3.7		
44	COOLING WATER REQUIRED (1)	LPM	8		
45	OPERATING SPEED (3)	RPM	345		
46	PISTON SPEED	M/SEC	0.7		

note a) temperature before heat exchanger

NOTE : Standard conditions are calculated at 14.7 psia and 60 °F (15 °C); Normal at 1.013 bar A and 0 °C (32 °F)

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PRESSURE PRODUCTS INDUSTRIES  
**MILTON ROY**

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**HEAD ASSEMBLY DETAILS**

		1ST STAGE	2ND STAGE		
7					
8	HEAD CLOSURE TYPE	FLGD & BOLTED			
9	HEAD WORKING PRESSURE	BARG	57		
10	HEAD DESIGN PRESSURE	BARG	68		
11	HEAD DESIGN TEMPERATURE	C	246		
12	DISPLACEMENT / STROKE	CM3	69.15		
13	BORE	MM	38.1		
14	CAVITY DIAMETER	MM	211.14		
15	HEAD COOLING FLUID	WATER			
16	LEAK DETECTION SYSTEM(2)	NOTE (2)			
17	PROCESS HEAD MATERIAL(4)	304 SS			
18	DIAPHRAGM CONSTRUCTION	TRIPLE METAL			
19	PROCESS DIAPH MATERIAL(4)	301 SST			
20	MAIN CLOSURE SEAL(4)	COPPER METAL			
21	SUCTION NOZZLE	IN	1/2" TUBE		
22	DISCHARGE NOZZLE	IN	1/2" TUBE		
23					

**COMPRESSOR FRAME DETAILS**

**OTHER**

25	NUMBER OF STAGES/HEADS		1 / 1 PER STG	ELECTRIC MOTOR SPEC.	TYPE	To be determined
26	FRAME CONFIGURATION		VERTICAL		MFG'R	To be determined
27	STROKE	MM	63.5		VOLTAGE	220V, 1PH, 50HZ
28	MAXIMUM ROD LOAD	KGf	680		HAZARD	NON EXPLOSIVE
29	RATED SPEED	RPM	425	COMP'R LOCATION	INDOOR	
30	MAIN BEARING		TAPERED ROLLER	AREA CLASSIFICATION	NON EXPLOSIVE	
31	CON ROD/ CRANK BEARING		BABBITT JOURNAL	ELECTRICAL POWER	250V, 1ph, 50hz	
32	CROSSHEAD BEARING		NEEDLE	PAINTING COLOR	MANUFACTURER'S STANDARD	
33	CRANKSHAFT MATERIAL		80/55/6 DUCTILE	APPLICABLE CODE	MANUFACTURER'S STANDARD	
34	CONNECTION ROD MATL		80/55/6 DUCTILE	DUTY	CONTINUOUS	
35	CROSSHEAD MATL		ALUMINUM	PULSATION FLUCTUATION	5%	
36	DRIVER METHOD		BELT	TYPE OF APPLICATION	RECYCLE COMPRESSOR	
37	LUBRICATION		FORCED	OVERALL DIMENSIONS (a)	1524 L x	914 W x 1219 H <b>MM</b>
38	CRANKSHAFT DIAMETER	MM	38.1	APPROX. WEIGHT (a)	816 <b>KG</b>	
39	WRIST PIN DIAMETER	MM	17.4625	LUBE OIL	ISO 68	
40	WRIST PIN BEARING L10 LIFE	HRS	20,468,022	note (a) these dimensions and weight are only preliminary and may not be used for construction purposes.		
41	DESIGN STANDARD API-618 MODIFIED					

**NOTES**

43	1.)	total requirement for single stage compressor. Cooling water requirement for aftercooler given elsewhere.
44	2.)	the leak detection system is fully integrated and designed to detect both diaphragm leakage and head seal leakage.
45	3.)	actual operating speed may vary in order to achieve guaranteed flow rate.
46	4.)	The materials of construction given in this quotation are for proposal purposes only.
47		PPI may make suggestions for a material to user with a specific media. These suggestions will be based on
48		technical compatibility resources both through associations and manufacturers. PPI does not guarantee the material
49		to be compatible with the specific media, this is the responsibility of the user. Users must test under their own
50		operating conditions to determine the suitability of any materials in a particular application.

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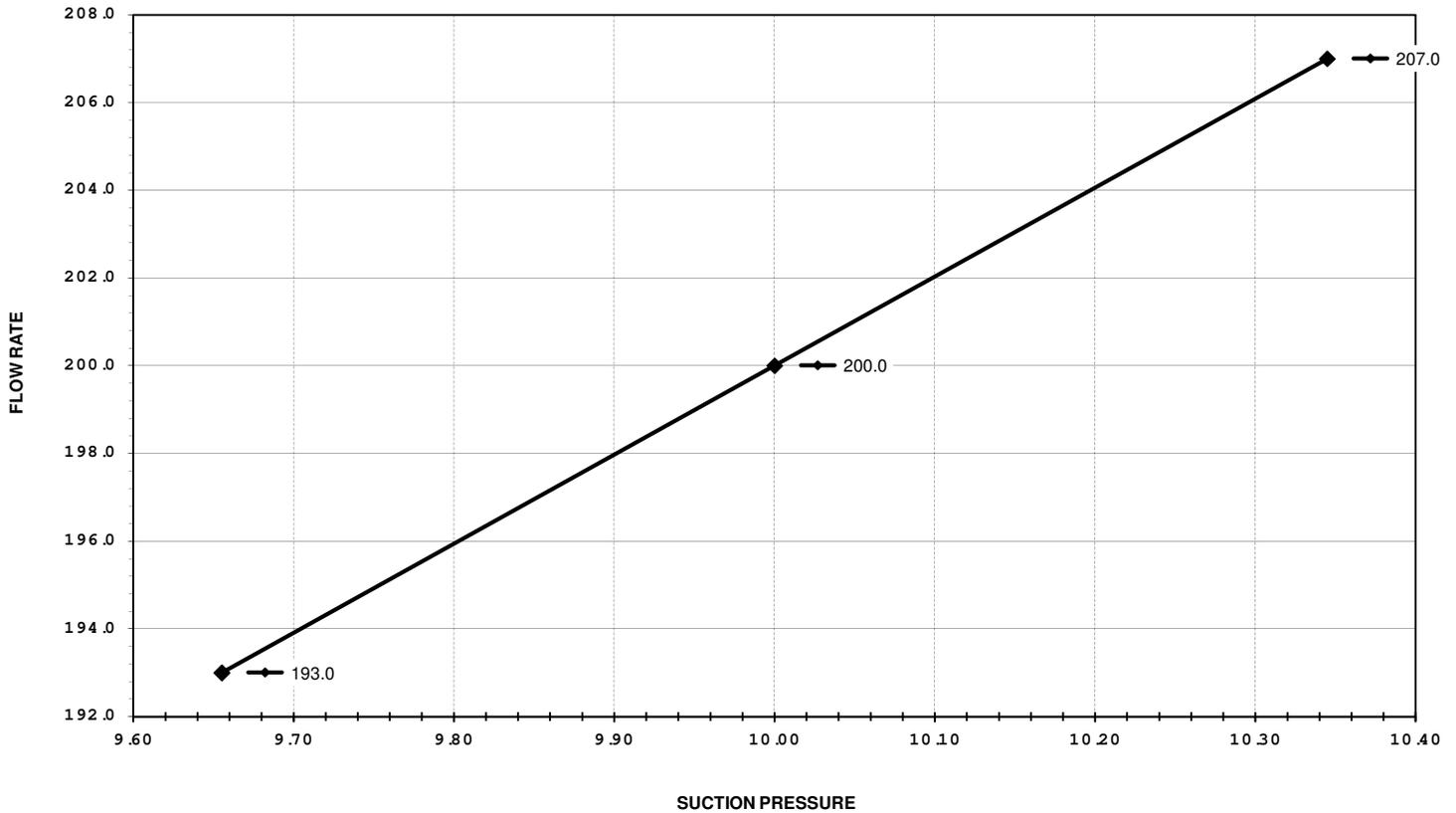
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**PERFORMANCE CURVE**

DISCHARGE PRESSURE	11	BARG	FLOW RATE	SLPM
GAS HANDLED	XENON		SUCTION PRESSURE	BARG
COMPRESSOR SPEED	345			



NOTE: NORMAL CONDITION FLOW POINT IS THE CERTIFIED POINT TO WHICH PPI GUARANTEES THE COMPRESSOR PERFORMANCE. MINIMUM AND MAXIMUM FLOW POINTS ARE FOR REFERENCE ONLY.

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